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NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	DEC 01	ChemPort single article sales feature unavailable
NEWS 3	FEB 02	Simultaneous left and right truncation (SLART) added for CERAB, COMPUAB, ELCOM, and SOLIDSTATE
NEWS 4	FEB 02	GENBANK enhanced with SET PLURALS and SET SPELLING
NEWS 5	FEB 06	Patent sequence location (PSL) data added to USGENE
NEWS 6	FEB 10	COMPENDEX reloaded and enhanced
NEWS 7	FEB 11	WTEXTILES reloaded and enhanced
NEWS 8	FEB 19	New patent-examiner citations in 300,000 CA/CAplus patent records provide insights into related prior art
NEWS 9	FEB 19	Increase the precision of your patent queries -- use terms from the IPC Thesaurus, Version 2009.01
NEWS 10	FEB 23	Several formats for image display and print options discontinued in USPATFULL and USPAT2
NEWS 11	FEB 23	MEDLINE now offers more precise author group fields and 2009 MeSH terms
NEWS 12	FEB 23	TOXCENTER updates mirror those of MEDLINE - more precise author group fields and 2009 MeSH terms
NEWS 13	FEB 23	Three million new patent records blast AEROSPACE into STN patent clusters
NEWS 14	FEB 25	USGENE enhanced with patent family and legal status display data from INPADOCDB
NEWS 15	MAR 06	INPADOCDB and INPAFAMDB enhanced with new display formats
NEWS 16	MAR 11	EPFULL backfile enhanced with additional full-text applications and grants
NEWS 17	MAR 11	ESBIOBASE reloaded and enhanced
NEWS 18	MAR 20	CAS databases on STN enhanced with new super role for nanomaterial substances
NEWS 19	MAR 23	CA/CAplus enhanced with more than 250,000 patent equivalents from China
NEWS 20	MAR 30	IMSPATENTS reloaded and enhanced
NEWS 21	APR 03	CAS coverage of exemplified prophetic substances enhanced
NEWS 22	APR 07	STN is raising the limits on saved answers
NEWS 23	APR 24	CA/CAplus now has more comprehensive patent assignee information
NEWS 24	APR 26	USPATFULL and USPAT2 enhanced with patent assignment/reassignment information
NEWS 25	APR 28	CAS patent authority coverage expanded
NEWS 26	APR 28	ENCOMPLIT/ENCOMPLIT2 search fields enhanced
NEWS 27	APR 28	Limits doubled for structure searching in CAS REGISTRY
NEWS 28	MAY 08	STN Express, Version 8.4, now available
NEWS 29	MAY 11	STN on the Web enhanced

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 NEWS 30  MAY 11  BEILSTEIN substance information now available on
                  STN Easy
 NEWS 31  MAY 14  DGENE, PCTGEN and USGENE enhanced with increased
                  limits for exact sequence match searches and
                  introduction of free HIT display format
 NEWS 32  MAY 15  INPADOCDB and INPAFAMDB enhanced with Chinese legal
                  status data

 NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
              AND CURRENT DISCOVER FILE IS DATED 06 APRIL 2009.

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* * * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *

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=> fil reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.22       0.22

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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   14 MAY 2009  HIGHEST RN 1146852-72-3
DICTIONARY FILE UPDATES:  14 MAY 2009  HIGHEST RN 1146852-72-3

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TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document.  For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

=>
Uploading C:\Program Files\Stnexp\Queries\QUERIES\10575469.str
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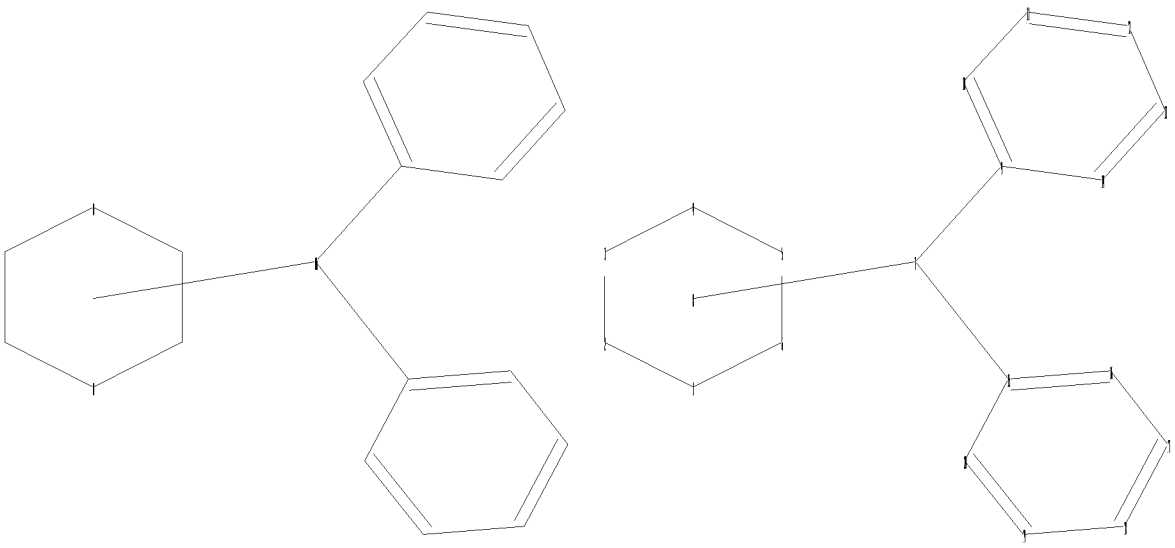
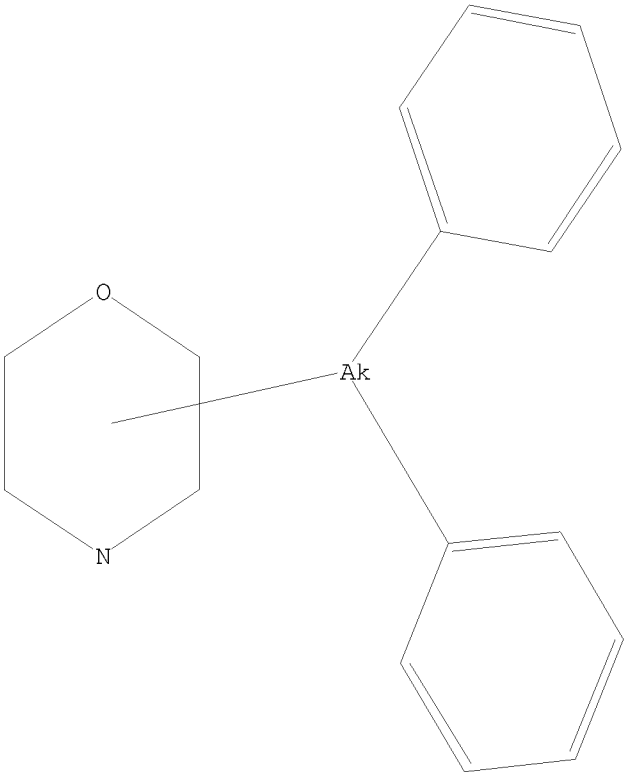


chain nodes :
7
ring nodes :
1 2 3 4 5 6 9 10 11 12 13 14 15 16 17 18 19 20
chain bonds :
7-9 7-15
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-11 11-12 12-13 13-14 15-16 15-20
16-17 17-18 18-19 19-20
exact/norm bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-9 7-15
normalized bonds :
9-10 9-14 10-11 11-12 12-13 13-14 15-16 15-20 16-17 17-18 18-19 19-20
isolated ring systems :
containing 1 : 9 : 15 :

Connectivity :
7:3 E exact RC ring/chain
Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS
18:CLASS 19:CLASS 20:CLASS

L1 STRUCTURE UPLOADED

=> d
L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

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=> s l1
SAMPLE SEARCH INITIATED 18:22:29 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    15803 TO ITERATE

 12.7% PROCESSED     2000 ITERATIONS                                0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:       308529 TO   323591
PROJECTED ANSWERS:               0 TO        0

L2            0 SEA SSS SAM L1

=> s l1 full
FULL SEARCH INITIATED 18:22:33 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   320339 TO ITERATE

100.0% PROCESSED   320339 ITERATIONS                             112 ANSWERS
SEARCH TIME: 00.00.07

L3          112 SEA SSS FUL L1

=> s l3 and caplus/lc
      66206910 CAPLUS/LC
L4          60 L3 AND CAPLUS/LC
```

```
=> s l3 not l4
L5          52 L3 NOT L4

=> d l5 50-52
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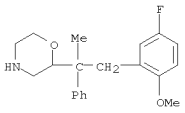
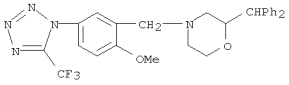
L5 ANSWER 50 OF 52 REGISTRY COPYRIGHT 2009 ACS on STN
RN 847819-48-1 REGISTRY
ED Entered STN: 03 Apr 2005
CN Morpholine, 2-[2-(5-fluoro-2-methoxyphenyl)-1-methyl-1-phenylethyl]- (CA INDEX NAME)
MF C20 H24 F N O2
CI COM
SR CA



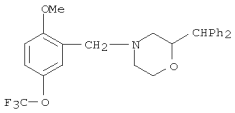
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 ANSWER 51 OF 52 REGISTRY COPYRIGHT 2009 ACS on STN
RN 791578-31-9 REGISTRY
ED Entered STN: 02 Dec 2004
CN Morpholine, 2-(diphenylmethyl)-4-[[2-methoxy-5-[5-(trifluoromethyl)-1H-tetrazol-1-yl]phenyl]methyl]- (CA INDEX NAME)
MF C27 H26 F3 N5 O2
CI COM
SR CA



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 ANSWER 52 OF 52 REGISTRY COPYRIGHT 2009 ACS on STN
RN 731768-77-7 REGISTRY
ED Entered STN: 23 Aug 2004
CN Morpholine, 2-(diphenylmethyl)-4-[[2-methoxy-5-(trifluoromethoxy)phenyl]methyl]- (CA INDEX NAME)
MF C26 H26 F3 N O3
CI COM
SR CA



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

```
=> d his

     (FILE 'HOME' ENTERED AT 18:21:45 ON 15 MAY 2009)

     FILE 'REGISTRY' ENTERED AT 18:22:05 ON 15 MAY 2009
L1             STRUCTURE UPLOADED
L2               0 S L1
L3             112 S L1 FULL
L4              60 S L3 AND CAPLUS/LC
L5              52 S L3 NOT L4

=> d l5 45-50
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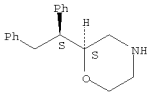
L5 ANSWER 45 OF 52 REGISTRY COPYRIGHT 2009 ACS on STN
RN 860115-81-7 REGISTRY
ED Entered STN: 15 Aug 2005
CN Morpholine, 2-[(1S)-1,2-diphenylethyl]-, (2S)- (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H21 N O
CI COM
SR CA

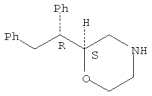
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 ANSWER 46 OF 52 REGISTRY COPYRIGHT 2009 ACS on STN
RN 860115-80-6 REGISTRY
ED Entered STN: 15 Aug 2005
CN Morpholine, 2-[(1R)-1,2-diphenylethyl]-, (2S)- (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H21 N O
CI COM
SR CA

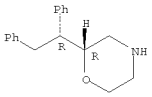
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 ANSWER 47 OF 52 REGISTRY COPYRIGHT 2009 ACS on STN
RN 860115-79-3 REGISTRY
ED Entered STN: 15 Aug 2005
CN Morpholine, 2-[(1R)-1,2-diphenylethyl]-, (2R)- (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H21 N O
CI COM
SR CA

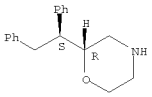
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 ANSWER 48 OF 52 REGISTRY COPYRIGHT 2009 ACS on STN
RN 860115-78-2 REGISTRY
ED Entered STN: 15 Aug 2005
CN Morpholine, 2-[(1S)-1,2-diphenylethyl]-, (2R)- (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H21 N O
CI COM
SR CA

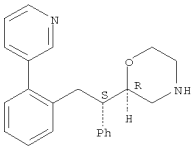
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

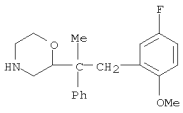
L5 ANSWER 49 OF 52 REGISTRY COPYRIGHT 2009 ACS on STN
RN 860115-77-1 REGISTRY
ED Entered STN: 15 Aug 2005
CN Morpholine, 2-[(1R)-1-phenyl-2-[2-(3-pyridinyl)phenyl]ethyl]-, (2S)-rel- (CA INDEX NAME)
FS STEREOSEARCH
MF C23 H24 N2 O
CI COM
SR CA

Relative stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L5 ANSWER 50 OF 52 REGISTRY COPYRIGHT 2009 ACS on STN
RN 847819-48-1 REGISTRY
ED Entered STN: 03 Apr 2005
CN Morpholine, 2-[2-(5-fluoro-2-methoxyphenyl)-1-methyl-1-phenylethyl]- (CA INDEX NAME)
MF C20 H24 F N O2
CI COM
SR CA



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```
=> fil caplus
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                        212.56     212.78

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FILE COVERS 1907 - 15 May 2009  VOL 150 ISS 21
FILE LAST UPDATED: 14 May 2009  (20090514/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED:  Feb 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE:  Feb 2009

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     FILE 'REGISTRY' ENTERED AT 18:22:05 ON 15 MAY 2009
L1             STRUCTURE UPLOADED
L2               0 S L1
L3             112 S L1 FULL
L4              60 S L3 AND CAPLUS/LC
L5              52 S L3 NOT L4

     FILE 'CAPLUS' ENTERED AT 18:25:59 ON 15 MAY 2009

=> d cost
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
CONNECT CHARGES                                             0.43       3.45
NETWORK CHARGES                                             0.07       0.63
SEARCH CHARGES                                              0.00     190.75
DISPLAY CHARGES                                             0.00      18.45
                                                         -------    -------
FULL ESTIMATED COST                                         0.50     213.28
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IN FILE 'CAPLUS' AT 18:26:04 ON 15 MAY 2009

=> d cost full

FILE & COST CENTER	QUANTITY	@	RATE	ESTIMATED COST U.S. DOLLARS
HOME FILE COST=				
CONNECT HOURS	0.01	@	15.00	0.15
INTERNET HOURS	0.01	@	7.00	0.07
REGISTRY FILE COST=				
CONNECT HOURS	0.07	@	41.00	2.87
INTERNET HOURS	0.07	@	7.00	0.49
DISPLAYS IN FORMAT IDE	9	@	2.05	18.45
ONL FUL SSS/CSS SEARCH TERMS	1	@	97.35	97.35
ONL FUL SSS/CSS SEARCHES	1	@	88.05	88.05
SEARCH TERMS IN FIELD LC	1	@	5.35	5.35
CAPLUS FILE COST=				
CONNECT HOURS	0.01	@	43.00	0.43
INTERNET HOURS	0.01	@	7.00	0.07

SUMMARY BY FILE AND	COST CENTER	HOURS	ESTIMATED COST U.S. DOLLARS
HOME FILE	(NONE)	0.01	0.22
REGISTRY FILE	(NONE)	0.07	212.56
CAPLUS FILE	(NONE)	0.01	0.50
COSTS INCLUDE TELECOMMUNICATION FEES		0.09	0.63

SUMMARY BY COST CENTER	HOURS	ESTIMATED COST U.S. DOLLARS
(NONE)	0.09	213.28
YOUR TOTAL SESSION COSTS ARE	0.09	213.28

IN FILE 'CAPLUS' AT 18:26:19 ON 15 MAY 2009

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.50	213.28

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FILE LAST UPDATED: 14 May 2009 (20090514/ED)
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

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     FILE 'REGISTRY' ENTERED AT 18:22:05 ON 15 MAY 2009
L1   STRUCTURE UPLOADED
L2   0 S L1
L3   112 S L1 FULL
L4   60 S L3 AND CAPLUS/LC
L5   52 S L3 NOT L4

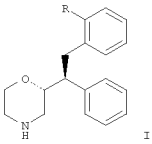
     FILE 'CAPLUS' ENTERED AT 18:25:59 ON 15 MAY 2009

     FILE 'CAPLUS' ENTERED AT 18:26:50 ON 15 MAY 2009

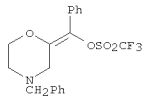
=> s l4
L6   11 L4

=> d ibib abs hitstr 1-11

L6 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2007:267254 CAPLUS
DOCUMENT NUMBER: 146:482009
TITLE: Straightforward synthesis of (R,R/S,S)-2-[2-(2-aryl)-1-phenylethyl]morpholines: a new class of inhibitors of the norepinephrine transporter
AUTHOR(S): Agejas, Javier; Lamas, Carlos
CORPORATE SOURCE: Lilly SA, Madrid, 28108, Spain
SOURCE: Tetrahedron Letters (2007), 48(14), 2603-2605
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 146:482009
GI



I

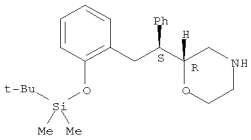


II

AB Diastereoselective synthesis of (R,R/S,S)-2-(2-aryl-1-phenylethyl)morpholines I (R = OEt, OMe, Ph, CHMe2, OPh, OSiMe2CMe3) was achieved through the preparation of key E-enol triflate II and its further coupling with appropriate benzylzinc reagents and final hydrogenation.
IT 860014-12-6P 935762-25-7P 935762-26-8P 935762-27-9P 935762-28-0P 935762-29-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of (arylphenylethyl)morpholines as norepinephrine transporter inhibitors by coupling of enol triflate with benzylzinc reagents and asym. hydrogenation)
RN 860014-12-6 CAPLUS
CN Morpholine, 2-[(1R)-2-[2-[[(1,1-dimethylethyl)dimethylsilyl]oxy]phenyl]-1-phenylethyl]-, (2S)-rel- (CA INDEX NAME)

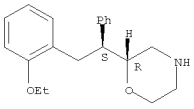
Relative stereochemistry.

L6 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)



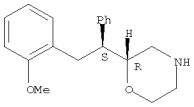
RN 935762-25-7 CAPLUS
CN Morpholine, 2-[(1R)-2-(2-ethoxyphenyl)-1-phenylethyl]-, (2S)-rel- (CA INDEX NAME)

Relative stereochemistry.



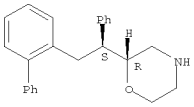
RN 935762-26-8 CAPLUS
CN Morpholine, 2-[(1R)-2-(2-methoxyphenyl)-1-phenylethyl]-, (2S)-rel- (CA INDEX NAME)

Relative stereochemistry.



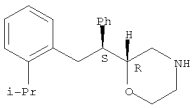
RN 935762-27-9 CAPLUS
CN Morpholine, 2-[(1R)-2-[1,1'-biphenyl]-2-yl-1-phenylethyl]-, (2S)-rel- (CA INDEX NAME)

Relative stereochemistry.



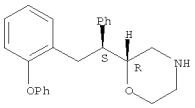
L6 ANSWER 1 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)
RN 935762-28-0 CAPLUS
CN Morpholine, 2-[(1R)-2-[2-(1-methylethyl)phenyl]-1-phenylethyl]-, (2S)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 935762-29-1 CAPLUS
CN Morpholine, 2-[(1R)-2-(2-phenoxyphenyl)-1-phenylethyl]-, (2S)-rel- (CA INDEX NAME)

Relative stereochemistry.



REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:638857 CAPLUS
DOCUMENT NUMBER: 143:153389
TITLE: Morpholine derivatives as norepinephrine reuptake inhibitors, their preparation and use for treating disorders associated with norepinephrine dysfunction
INVENTOR(S): Gallagher, Peter Thaddeus; Lamas-Peteira, Carlos; Agejas-Chicharro, Francisco Javier
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: PCT Int. Appl., 84 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005066144	A1	20050721	WO 2004-US38240	20041210
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1716126	A1	20061102	EP 2004-811091	20041210
EP 1716126	B1	20090225		
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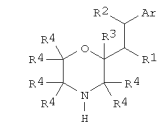
AT 423772	T	20090315	AT 2004-811091	20041210
US 20070060585	A1	20070315	US 2006-575469	20060412

PRIORITY APPLN. INFO.: EP 2003-380306 A 20031223
US 2004-547519P P 20040225
WO 2004-US38240 W 20041210

OTHER SOURCE(S): CASREACT 143:153389; MARPAT 143:153389
GI



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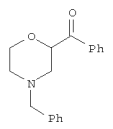

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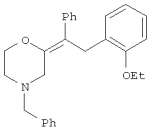

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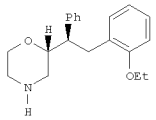


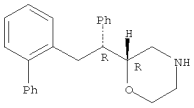
IV

AB The invention relates to morpholine derivs. I, which are inhibitors of the reuptake of norepinephrine. In compds. I, Ar is (un)substituted Ph ring or (un)substituted 5- or 6-membered heteroaryl; R1 is (un)substituted C1-6 alkyl, (un)substituted C2-6 alkenyl, (un)substituted C3-6 cycloalkyl, (un)substituted C4-7 cycloalkylalkyl, (un)substituted aryl, or (un)substituted arylmethyl; R2 and R3 are independently selected from H and C1-4 alkyl; and each R4 group is independently selected from H and C1-4 alkyl, provided that not more than three R4 groups may be C1-4 alkyl. The invention also relates to the preparation of I, pharmaceutical compns. containing compound I or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable diluent, excipient, or carrier, as well as the use of the compns. in the treatment of nervous system disorders associated with norepinephrine dysfunction. Cyclocondensation of N-benzylethanolamine with 2-chloroacrylonitrile followed by addition of phenylmagnesium chloride resulted in the formation of morpholine II. O-Sulfonylation of II with N-phenylbis(trifluoromethanesulfonimide) and substitution with 2-ethoxybenzylzinc chloride gave (Z)-morpholine III. III was hydrogenated to give (R*,R*)-IV and chiral separation gave IV along with its (S,S)-enantiomer. All the tested compds. exhibit Ki values of less than 1 μM at the norepinephrine transporter, and inhibit the norepinephrine transporter selectively over the serotonin and dopamine transporters.

IT 860013-85-0P 860013-86-1P 860013-90-7P
RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); PROC (Process); USES (Uses)
(drug candidate; prepn. of morpholine derivs. as norepinephrine reuptake inhibitors)

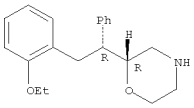
RN 860013-85-0 CAPLUS
CN Morpholine, 2-[(1R)-2-[1,1'-biphenyl]-2-yl-1-phenylethyl]-, (2R)-rel- (CA INDEX NAME)

Relative stereochemistry.



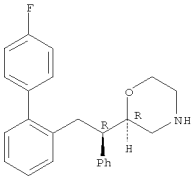
RN 860013-86-1 CAPLUS
CN Morpholine, 2-[(1R)-2-(2-ethoxyphenyl)-1-phenylethyl]-, (2R)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 860013-90-7 CAPLUS
CN Morpholine, 2-[(1R)-2-(4'-fluoro[1,1'-biphenyl]-2-yl)-1-phenylethyl]-, (2R)-rel- (CA INDEX NAME)

Relative stereochemistry.



IT 860013-94-1P 860013-95-2P 860013-96-3P
860013-97-4P 860013-98-5P 860013-99-6P
860014-00-2P 860014-01-3P 860014-02-4P
860014-03-5P 860014-04-6P 860014-05-7P
860014-06-8P 860014-07-9P 860014-08-0P
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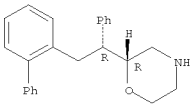
860014-20-6P 860014-21-7P 860014-22-8P
860014-23-9P 860014-27-3P 860014-28-4P
860014-29-5P 860014-30-8P
RL: PAC (Pharmacological activity); PUR (Purification or recovery); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; prepn. of morpholine derivs. as norepinephrine reuptake inhibitors)

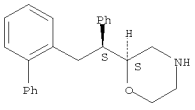
RN 860013-94-1 CAPLUS
CN Morpholine, 2-[(1R)-2-[1,1'-biphenyl]-2-yl-1-phenylethyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



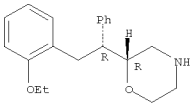
RN 860013-95-2 CAPLUS
CN Morpholine, 2-[(1S)-2-[1,1'-biphenyl]-2-yl-1-phenylethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



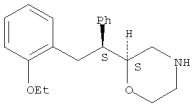
RN 860013-96-3 CAPLUS
CN Morpholine, 2-[(1R)-2-(2-ethoxyphenyl)-1-phenylethyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



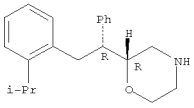
RN 860013-97-4 CAPLUS
CN Morpholine, 2-[(1S)-2-(2-ethoxyphenyl)-1-phenylethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



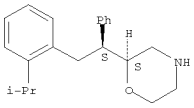
RN 860013-98-5 CAPLUS
CN Morpholine, 2-[(1R)-2-[2-(1-methylethyl)phenyl]-1-phenylethyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



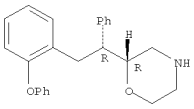
RN 860013-99-6 CAPLUS
CN Morpholine, 2-[(1S)-2-[2-(1-methylethyl)phenyl]-1-phenylethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



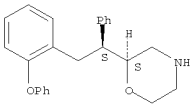
RN 860014-00-2 CAPLUS
CN Morpholine, 2-[(1R)-2-(2-phenoxyphenyl)-1-phenylethyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



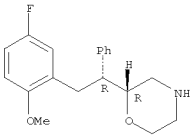
RN 860014-01-3 CAPLUS
CN Morpholine, 2-[(1S)-2-(2-phenoxyphenyl)-1-phenylethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



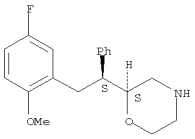
RN 860014-02-4 CAPLUS
CN Morpholine, 2-[(1R)-2-(5-fluoro-2-methoxyphenyl)-1-phenylethyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



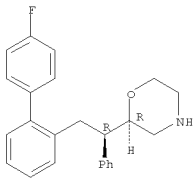
RN 860014-03-5 CAPLUS
CN Morpholine, 2-[(1S)-2-(5-fluoro-2-methoxyphenyl)-1-phenylethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



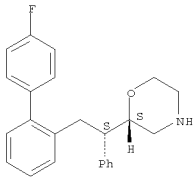
RN 860014-04-6 CAPLUS
CN Morpholine, 2-[(1R)-2-(4'-fluoro[1,1'-biphenyl]-2-yl)-1-phenylethyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



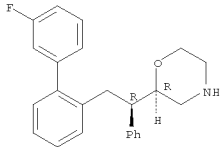
RN 860014-05-7 CAPLUS
CN Morpholine, 2-[(1S)-2-(4'-fluoro[1,1'-biphenyl]-2-yl)-1-phenylethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 860014-06-8 CAPLUS
CN Morpholine, 2-[(1R)-2-(3'-fluoro[1,1'-biphenyl]-2-yl)-1-phenylethyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



RN 860014-07-9 CAPLUS
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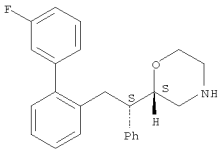
Absolute stereochemistry.



RN 860014-08-0 CAPLUS
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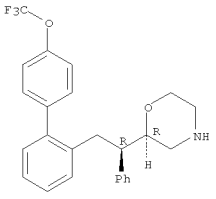
Absolute stereochemistry.



RN 860014-09-1 CAPLUS
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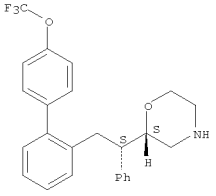
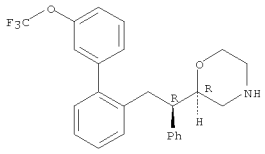
Absolute stereochemistry.



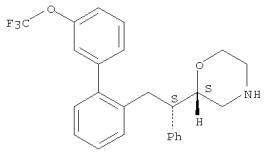
RN 860014-10-4 CAPLUS
CN Morpholine, 2-[(1R)-1-phenyl-2-[3'-(trifluoromethoxy)[1,1'-biphenyl]-2-yl]ethyl]-, (2R)- (CA INDEX NAME)

Absolute stereochemistry.



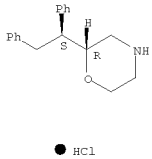
RN 860014-11-5 CAPLUS
CN Morpholine, 2-[(1S)-1-phenyl-2-[3'-(trifluoromethoxy)[1,1'-biphenyl]-2-yl]ethyl]-, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



RN 860014-20-6 CAPLUS
CN Morpholine, 2-[(1S)-1,2-diphenylethyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

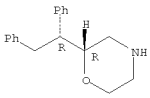


● HCl

RN 860014-21-7 CAPLUS

CN Morpholine, 2-[(1R)-1,2-diphenylethyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

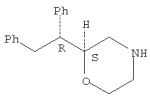


● HCl

RN 860014-22-8 CAPLUS

CN Morpholine, 2-[(1R)-1,2-diphenylethyl]-, hydrochloride (1:1), (2S)- (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RN 860014-23-9 CAPLUS

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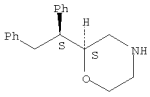
Absolute stereochemistry.

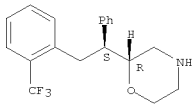


● HCl

RN 860014-27-3 CAPLUS

CN Morpholine, 2-[(1S)-1-phenyl-2-[2-(trifluoromethyl)phenyl]ethyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

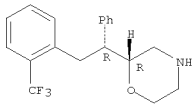


● HCl

RN 860014-28-4 CAPLUS

CN Morpholine, 2-[(1R)-1-phenyl-2-[2-(trifluoromethyl)phenyl]ethyl]-, hydrochloride (1:1), (2R)- (CA INDEX NAME)

Absolute stereochemistry.

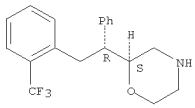


● HCl

RN 860014-29-5 CAPLUS

CN Morpholine, 2-[(1R)-1-phenyl-2-[2-(trifluoromethyl)phenyl]ethyl]-, hydrochloride (1:1), (2S)- (CA INDEX NAME)

Absolute stereochemistry.



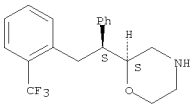
● HCl

RN 860014-30-8 CAPLUS

CN Morpholine, 2-[(1S)-1-phenyl-2-[2-(trifluoromethyl)phenyl]ethyl]-,

hydrochloride (1:1), (2S)- (CA INDEX NAME)

Absolute stereochemistry.



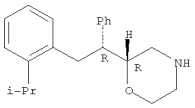
● HCl

IT 860013-87-2P 860013-88-3P 860013-89-4P
860013-91-8P 860013-92-9P 860013-93-0P
860014-18-2P, 2-(1,2-Diphenylethyl)morpholine 860014-25-1P
, 2-[1-Phenyl-2-(2-trifluoromethylphenyl)ethyl]morpholine
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(drug candidate; preparation of morpholine derivs. as norepinephrine reuptake inhibitors)

RN 860013-87-2 CAPLUS

CN Morpholine, 2-[(1R)-2-[2-(1-methylethyl)phenyl]-1-phenylethyl]-, (2R)-rel-
(CA INDEX NAME)

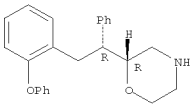
Relative stereochemistry.



RN 860013-88-3 CAPLUS

CN Morpholine, 2-[(1R)-2-(2-phenoxyphenyl)-1-phenylethyl]-, (2R)-rel- (CA INDEX NAME)

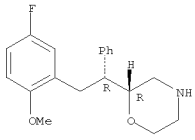
Relative stereochemistry.



RN 860013-89-4 CAPLUS

CN Morpholine, 2-[(1R)-2-(5-fluoro-2-methoxyphenyl)-1-phenylethyl]-, (2R)-rel- (CA INDEX NAME)

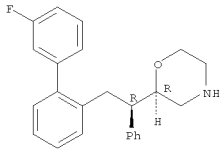
Relative stereochemistry.



RN 860013-91-8 CAPLUS

CN Morpholine, 2-[(1R)-2-(3'-fluoro[1,1'-biphenyl]-2-yl)-1-phenylethyl]-, (2R)-rel- (CA INDEX NAME)

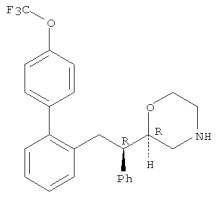
Relative stereochemistry.



RN 860013-92-9 CAPLUS

CN Morpholine, 2-[(1R)-1-phenyl-2-[4'-(trifluoromethoxy)[1,1'-biphenyl]-2-yl]ethyl]-, (2R)-rel- (CA INDEX NAME)

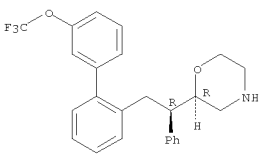
Relative stereochemistry.



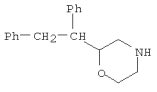
RN 860013-93-0 CAPLUS

L6 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)
CN Morpholine, 2-[(1R)-1-phenyl-2-[3'-(trifluoromethoxy)[1,1'-biphenyl]-2-yl]ethyl]-, (2R)-rel- (CA INDEX NAME)

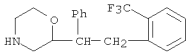
Relative stereochemistry.



RN 860014-18-2 CAPLUS
CN Morpholine, 2-(1,2-diphenylethyl)- (CA INDEX NAME)



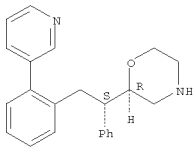
RN 860014-25-1 CAPLUS
CN Morpholine, 2-[1-phenyl-2-[2-(trifluoromethyl)phenyl]ethyl]- (CA INDEX NAME)



IT 860014-16-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(drug candidate; preparation of morpholine derivs. as norepinephrine reuptake inhibitors)
RN 860014-16-0 CAPLUS
CN Morpholine, 2-[(1S)-1-phenyl-2-[2-(3-pyridinyl)phenyl]ethyl]-, hydrochloride (1:2), (2R)-rel- (CA INDEX NAME)

Relative stereochemistry.

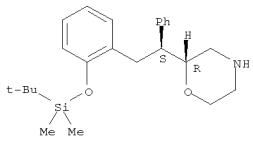
L6 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)



●2 HCl

IT 860014-12-6P 860014-13-7P 860014-14-8P
860014-15-9P 860014-17-1P,
4-Benzyl-2-(1,2-diphenylvinyl)morpholine 860014-24-0P,
4-Benzyl-2-[1-Phenyl-2-(2-trifluoromethylphenyl)vinyl]morpholine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of morpholine derivs. as norepinephrine reuptake
inhibitors)
RN 860014-12-6 CAPLUS
CN Morpholine,
2-[(1R)-2-[2-[[(1,1-dimethylethyl)dimethylsilyl]oxy]phenyl]-1-phenylethyl]-, (2S)-rel- (CA INDEX NAME)

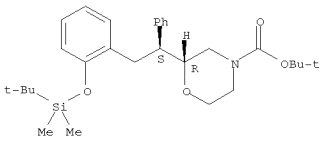
Relative stereochemistry.



RN 860014-13-7 CAPLUS
CN 4-Morpholinecarboxylic acid, 2-[(1R)-2-[2-[[(1,1-dimethylethyl)dimethylsilyl]oxy]phenyl]-1-phenylethyl]-, 1,1-dimethylethyl
ester, (2S)-rel- (CA INDEX NAME)

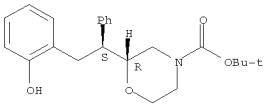
Relative stereochemistry.

L6 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)



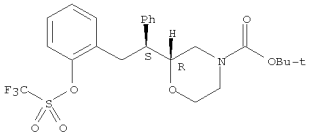
RN 860014-14-8 CAPLUS
CN 4-Morpholinecarboxylic acid, 2-[(1R)-2-(2-hydroxyphenyl)-1-phenylethyl]-, 1,1-dimethylethyl ester, (2S)-rel- (CA INDEX NAME)

Relative stereochemistry.

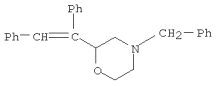


RN 860014-15-9 CAPLUS
CN 4-Morpholinecarboxylic acid, 2-[(1R)-1-phenyl-2-[2-[[(trifluoromethyl)sulfonyl]oxy]phenyl]ethyl]-, 1,1-dimethylethyl ester, (2S)-rel- (CA INDEX NAME)

Relative stereochemistry.

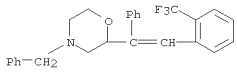


RN 860014-17-1 CAPLUS
CN Morpholine, 2-(1,2-diphenylethenyl)-4-(phenylmethyl)- (CA INDEX NAME)

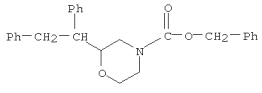


RN 860014-24-0 CAPLUS

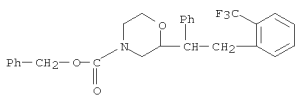
L6 ANSWER 2 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)
CN Morpholine, 4-(phenylmethyl)-2-[1-phenyl-2-[2-(trifluoromethyl)phenyl]ethenyl]- (CA INDEX NAME)



IT 860014-19-3P, 2-(1,2-Diphenylethyl)morpholine-4-carboxylic acid benzyl ester 860014-26-2P
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process)
(preparation of morpholine derivs. as norepinephrine reuptake inhibitors)
RN 860014-19-3 CAPLUS
CN 4-Morpholinecarboxylic acid, 2-(1,2-diphenylethyl)-, phenylmethyl ester (CA INDEX NAME)



RN 860014-26-2 CAPLUS
CN 4-Morpholinecarboxylic acid, 2-[1-phenyl-2-[2-(trifluoromethyl)phenyl]ethyl]-, phenylmethyl ester (CA INDEX NAME)



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

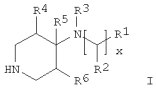
L6 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:523264 CAPLUS
DOCUMENT NUMBER: 143:59831
TITLE: A preparation of aminopiperidine derivatives, useful for the treatment of cognitive failure
INVENTOR(S): Hatfield, Alan Kramer; Bymaster, Franklin Porter; McKinzie, David Lee; Tucker, Tina Marie; Keaffaber, Kirk Matthew; Sumner, Calvin Russell; Trzepacz, Paula Terese; Allen, Albert John; Kelsey, Douglas Kenneth; Michelson, David; Gehlert, Donald Richard; Yang, Charles Renkin
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: PCT Int. Appl., 300 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

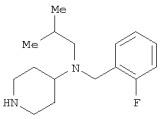
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005053663	A2	20050616	WO 2004-US37195	20041124
WO 2005053663	A3	20050811		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.:	US 2003-524450P	P	20031124
	US 2003-524781P	P	20031125

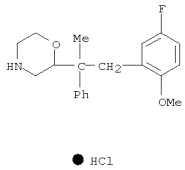
OTHER SOURCE(S): MARPAT 143:59831
GI


I


II

AB The invention relates to a preparation of aminopiperidine derivs. of formula I
[wherein: x is 1-3; R1 is (un)substituted phenyl; R2 and R5 are independently H or alkyl; R3 is (cyclo)alkyl, alkenyl, or cycloalkylalkyl,

L6 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)
etc.; R4 is H, halogen, or OH, etc.; R6 is H, halogen, CN, or alkyl, etc.], useful for the treatment of cognitive failure. Selective norepinephrine reuptake inhibitors were used to treat cognitive failure. For instance, fumarate salt of aminopiperidine deriv. II was prepd. via imination of 2-fluorobenzaldehyde by tert-Bu 4-[(2-methylpropyl)amino]piperidine-1-carboxylate, redn. of the obtained imine, and subsequent fumaric acid salt formation. The preferred invention compds. exhibit Ki values less than 500 nM at the norepinephrine transporter.
IT 847687-21-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of aminopiperidine derivs. useful for the treatment of cognitive failure)
RN 847687-21-2 CAPLUS
CN Morpholine, 2-[2-(5-fluoro-2-methoxyphenyl)-1-methyl-1-phenylethyl]-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

L6 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2005:216719 CAPLUS
DOCUMENT NUMBER: 142:291416
TITLE: Treatment of stuttering and other communication disorders with norepinephrine reuptake inhibitors
INVENTOR(S): Kelsey, Douglas Kenneth
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: PCT Int. Appl., 299 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005021095	A2	20050310	WO 2004-US25591	20040825
WO 2005021095	A3	20050609		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

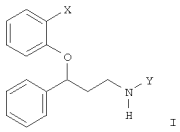
CA 2532349	A1	20050310	CA 2004-2532349	20040825
EP 1660185	A2	20060531	EP 2004-780429	20040825

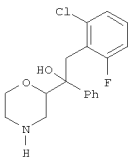
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

US 20070032554	A1	20070208	US 2006-568269	20060214
PRIORITY APPLN. INFO.:			US 2003-498018P	P 20030827
			WO 2004-US25591	W 20040825

OTHER SOURCE(S): MARPAT 142:291416
GI

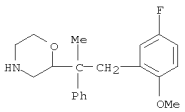
L6 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)


I


II

AB Provided are methods and medicaments for treating stuttering or another communication disorder, comprising administering to a patient in need of such treatment an effective amount of a selective norepinephrine reuptake inhibitor. The invention discloses the use of atomoxetine, racemic reboxetine, (S,S)-reboxetine, and compds. of formula I [wherein X = alkylthio and Y = alkyl; as described in U.S. patent Number 5,281,624], as well as their pharmaceutically acceptable salts, as the norepinephrine reuptake inhibitors described for treatment purposes. The invention further discloses the preparation of addnl. heterocyclic derivs. (as well as their pharmaceutically acceptable salts) that possess ability to serve as norepinephrine reuptake inhibitors. For instance, morpholine derivative II•HCl was prepared via alkylation of (4-benzyl-morpholin-2-yl)(phenyl)methanone with 2-chloro-6-fluorobenzylmagnesium chloride and subsequent N-debenzylation. The preferred invention compds. exhibited Ki values of less than 500 nM at the norepinephrine transporter (scintillation proximity assay).
IT 847687-21-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of heterocyclic compds. useful as norepinephrine reuptake inhibitors)
RN 847687-21-2 CAPLUS
CN Morpholine, 2-[2-(5-fluoro-2-methoxyphenyl)-1-methyl-1-phenylethyl]-, hydrochloride (1:1) (CA INDEX NAME)

L6 ANSWER 4 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)



● HCl

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

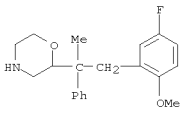
FORMAT

L6 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)
an effective amt. of a selective norepinephrine reuptake inhibitor. The invention discloses the use of atomoxetine, racemic reboxetine, (S,S)-reboxetine, and compds. of formula I [wherein X = alkylthio and Y = alkyl; as described in U.S. patent No. 5,281,624], as well as their pharmaceutically acceptable salts, as the norepinephrine reuptake inhibitors described for treatment purposes. The invention further discloses the prepn. of addnl. heterocyclic derivs. (as well as their pharmaceutically acceptable salts) that possess ability to serve as norepinephrine reuptake inhibitors. For instance, morpholine deriv. II•HCl (R = H) was prepd. via alkylation of (4-benzyl-morpholin-2-yl)(phenyl)methanone by 2-chloro-6-fluorobenzylmagnesium chloride and subsequent N-debenzylation of the obtained alc. I (R = Bn). The preferred invention compds. exhibited Ki values of less than 500 nM at the norepinephrine transporter (scintillation proximity assay).

IT 847687-21-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of heterocyclic compds. useful as norepinephrine reuptake inhibitors)

RN 847687-21-2 CAPLUS

CN Morpholine, 2-[2-(5-fluoro-2-methoxyphenyl)-1-methyl-1-phenylethyl]-, hydrochloride (1:1) (CA INDEX NAME)



● HCl

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE

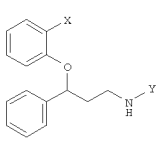
FORMAT

L6 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

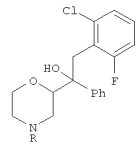
ACCESSION NUMBER: 2005:216660 CAPLUS
DOCUMENT NUMBER: 142:291415
TITLE: Treatment of pervasive development disorders employing norepinephrine reuptake inhibitors
INVENTOR(S): Allen, Albert John; Kelsey, Douglas Kenneth
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: PCT Int. Appl., 300 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005020976	A2	20050310	WO 2004-US25593	20040825
WO 2005020976	A3	20050616		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2536161	A1	20050310	CA 2004-2536161	20040825
EP 1660065	A2	20060531	EP 2004-780431	20040825
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
US 20060241188	A1	20061026	US 2006-568466	20060214
PRIORITY APPLN. INFO.:			US 2003-498146P	P 20030827
			WO 2004-US25593	W 20040825

OTHER SOURCE(S): CASREACT 142:291415; MARPAT 142:291415
GI



I



II

AB Provided are methods and medicaments for treating a pervasive development disorder, comprising administering to a patient in need of such treatment

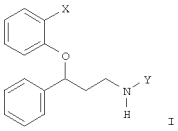
L6 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:216659 CAPLUS
DOCUMENT NUMBER: 142:291414
TITLE: Treatment of learning disabilities and motor skills disorder with norepinephrine reuptake inhibitors
INVENTOR(S): Sumner, Calvin Russell
PATENT ASSIGNEE(S): Eli Lilly and Company, USA
SOURCE: PCT Int. Appl., 304 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

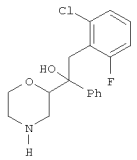
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005020975	A2	20050310	WO 2004-US25592	20040825
WO 2005020975	A3	20050602		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2530014	A1	20050310	CA 2004-2530014	20040825
EP 1660064	A2	20060531	EP 2004-780430	20040825
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
US 2007010596O	A1	20070510	US 2006-568244	20060214
PRIORITY APPLN. INFO.:			US 2003-498019P	P 20030827
			WO 2004-US25592	W 20040825

OTHER SOURCE(S): MARPAT 142:291414
GI

L6 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)



I



II

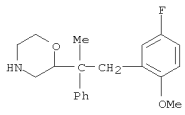
AB Provided are methods and medicaments for treating a learning disability or a motor skills disorder, comprising administering to a patient in need of such treatment an effective amount of a selective norepinephrine reuptake inhibitor. The invention discloses the use of atomoxetine, racemic reboxetine, (S,S)-reboxetine, and compds. of formula I [wherein X = alkylthio and Y = alkyl; as described in U.S. patent Number 5,281,624], as well as their pharmaceutically acceptable salts, as the norepinephrine reuptake inhibitors described for treatment purposes. The invention further discloses the preparation of addnl. heterocyclic derivs. (as well as their pharmaceutically acceptable salts) that possess ability to serve as norepinephrine reuptake inhibitors. For instance, morpholine derivative II•HCl was prepared via alkylation of (4-benzyl-morpholin-2-yl)(phenyl)methanone with 2-chloro-6-fluorobenzylmagnesium chloride and subsequent N-debenzylation. The preferred invention compds. exhibited Ki values of less than 500 nM at the norepinephrine transporter (scintillation proximity assay).

IT 847687-21-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of heterocyclic compds. useful as norepinephrine reuptake inhibitors)

RN 847687-21-2 CAPLUS

CN Morpholine, 2-[2-(5-fluoro-2-methoxyphenyl)-1-methyl-1-phenylethyl]-, hydrochloride (1:1) (CA INDEX NAME)

L6 ANSWER 6 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)



● HCl

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN

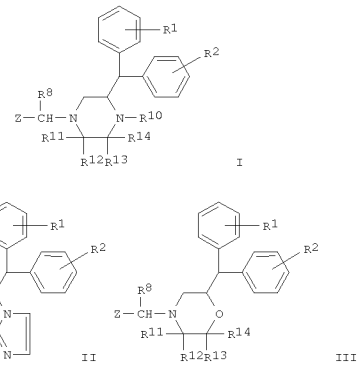
ACCESSION NUMBER: 2002:10450 CAPLUS
DOCUMENT NUMBER: 136:85824
TITLE: Preparation of benzhydryl derivatives as tachykinin antagonists
INVENTOR(S): Take, Kazuhiko; Kasahara, Chiyoshi; Shigenaga, Shinji; Azami, Hidenori; Eikyu, Yoshiteru; Nakai, Kazuo; Morita, Masataka
PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Japan
SOURCE: PCT Int. Appl., 136 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002000631	A2	20020103	WO 2001-JP5424	20010625
WO 2002000631	A3	20020808		
W: JP, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
EP 1294700	A2	20030326	EP 2001-943821	20010625
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
JP 2004501903	T	20040122	JP 2002-505379	20010625
US 20030176430	A1	20030918	US 2002-297937	20021220
US 6787543	B2	20040907		

PRIORITY APPLN. INFO.: AU 2000-8454 A 20000629
AU 2001-2373 A 20010102
WO 2001-JP5424 W 20010625

OTHER SOURCE(S): MARPAT 136:85824
GI

L6 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)



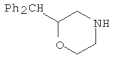
I II III

AB The title compds. including 2-benzhydrylpiperazine, 4-benzhydrylhexahydropyrrolo[1,2-a]pyrazine, 4-benzhydrylimidazo[2,3]pyrazine, and 2-benzhydrylmorpholine derivs. [I, II, and III; R1, R2 = H, halo, lower alkoxy, lower alkyl, mono(or di or tri) halo(lower)alkyl; R10 = H, lower alkyl optionally substituted with lower alkoxy, carbamoyl, or phenyl; R11, R12, R13, R14 = H, lower alkoxycarbonyl or lower alkyl optionally substituted with hydroxy or lower alkoxy, and R10 and R14 optionally forming (CH2)iCHR15(CH2)j, (CH2)iNR16(CH2)j, (CH2)iOCH2CO or (CH2)iO(CH2)j (wherein i, j = 1,2; R15 = H, halo, lower alkyl, HO, lower alkoxy, amino, lower alkylamino or di(lower)alkylamino; R16 = H, lower alkyl, lower alkanoyl, lower alkoxycarbonyl, benzyloxycarbonyl, lower alkylsulfonyl or mono(or di or tri)halo(lower)alkylsulfonyl); or R12 and R13 optionally forming (CH2)iCHR15(CH2)j (wherein i, j, R15 = same as above); or R13 and R14 optionally forming oxo or two to five methylenes, optionally substituted Ph, naphthyl, benzo[d][1,3]dioxolyl, or pyridyl] and salts thereof are prepared These compds. and pharmaceutically acceptable salts thereof have pharmacol. activities such as tachykinin antagonism, especially substance P antagonism, neurokinin A antagonism or neurokinin B antagonism, and therefore are useful for treating or preventing tachykinin-mediated diseases, particularly substance P-mediated diseases, for example, respiratory diseases such as asthma, bronchitis, rhinitis, cough, and expectoration; ophthalmic diseases such as conjunctivitis and vernal conjunctivitis; cutaneous diseases such as contact dermatitis, atopic dermatitis, urticaria, and other eczematoid dermatitis; inflammatory diseases such as rheumatoid arthritis and osteoarthritis; and pains or

L6 ANSWER 7 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)
aches (e.g. migraine, headache, cluster headache, toothache, cancerous pain, back pain, neuralgia, etc.). Thus, chloroformate (3 drops) was added to a mixt. of (6R,9aS)-4-benzhydryl-2-[2-methoxy-5-[5-(trifluoromethyl)-1H-tetrazol-1-yl]benzyl]octahydropyrazino[1,2-a]pyrazine trihydrochloride (12 mg) and N,N-diisopropylethylamine (6 drops) in dichloromethane (1 mL) under ice-cooling and stirred at the same temp. for 2 h to give, after work-up, purifn. on silica gel chromatog., and treatment with 4 N HCl/EtOAc, (6R,9aR)-6-benzhydryl-8-[2-methoxy-5-[5-(trifluoromethyl)-1H-tetrazol-1-yl]benzyl]octahydropyrazino[1,2-a]pyrazine-2-carboxylic acid Me ester dihydrochloride (IV) (7.0 mg) as a colorless powder. IV showed 90 % inhibition rate of emesis in the dog at the dose of 1.0 mg/kg.

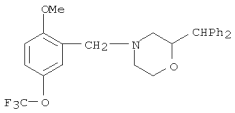
IT 385802-02-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of benzhydryl derivs. as tachykinin antagonists for treating or preventing tachykinin-mediated diseases)

RN 385802-02-8 CAPLUS
CN Morpholine, 2-(diphenylmethyl)- (CA INDEX NAME)

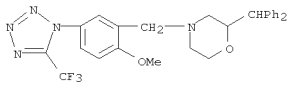


IT 385803-16-7P 385803-17-8P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzhydryl derivs. as tachykinin antagonists for treating or preventing tachykinin-mediated diseases)

RN 385803-16-7 CAPLUS
CN Morpholine, 2-(diphenylmethyl)-4-[[2-methoxy-5-(trifluoromethoxy)phenyl]methyl]-, hydrochloride (1:1) (CA INDEX NAME)

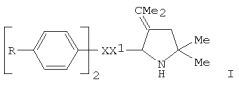


RN 385803-17-8 CAPLUS
CN Morpholine, 2-(diphenylmethyl)-4-[[2-methoxy-5-[5-(trifluoromethyl)-1H-tetrazol-1-yl]phenyl]methyl]-, hydrochloride (1:1) (CA INDEX NAME)



REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1993:539010 CAPLUS
DOCUMENT NUMBER: 119:139010
ORIGINAL REFERENCE NO.: 119:24923a,24926a
TITLE: Agents for the treatment of overactive detrusor. IV. Synthesis and structure-activity relationships of cyclic analogs of terodiline
AUTHOR(S): Take, Kazuhiko; Okumura, Kazuo; Tsubaki, Kazunori; Terai, Takao; Shiokawa, Youichi
CORPORATE SOURCE: New Drug Res. Lab., Fujisawa Pharm. Co., Ltd., Osaka, 532, Japan
SOURCE: Chemical & Pharmaceutical Bulletin (1993), 41(3), 507-15
CODEN: CPBTAL; ISSN: 0009-2363
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 119:139010
GI

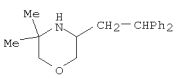


I

AB A series of pyrrolidine derivs. were synthesized and examined for inhibitory activity on detrusor contraction in vivo. Among these compds., I (R = H, F; XX1 = CHCH2, C:CH, NCH2) showed stronger inhibitory activity on detrusor contraction than terodiline.

IT 149553-62-8 149861-43-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation as inhibitor of detrusor muscle contraction)

RN 149553-62-8 CAPLUS
CN Morpholine, 5-(2,2-diphenylethyl)-3,3-dimethyl- (CA INDEX NAME)

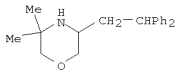


RN 149861-43-8 CAPLUS
CN Morpholine, 5-(2,2-diphenylethyl)-3,3-dimethyl-, methanesulfonate (1:1) (CA INDEX NAME)

CM 1

CRN 149553-62-8
CMF C20 H25 N O

L6 ANSWER 8 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)



CM 2

CRN 75-75-2
CMF C H4 O3 S

L6 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1962:7723 CAPLUS
DOCUMENT NUMBER: 56:7723
ORIGINAL REFERENCE NO.: 56:1461f-i
TITLE: 3-Benzhydrylmorpholine and its salts
INVENTOR(S): Winthrop, Stanley O.
PATENT ASSIGNEE(S): American Home Products Corp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

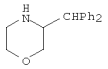
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2993895		19610725	US 1959-795352	19590225

PRIORITY APPLN. INFO.: US 19590225

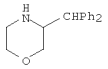
AB 3-Benzhydrylmorpholine (I) and its salts are central nervous system stimulants. The preparation of I is described. Thus, 46 g. Et β,β-diphenylalaninate-HCl, m. 200-1°, was converted into the free base with Na2CO3 and the base extracted into ether. The dry ether solution was added dropwise with stirring into a solution of 11.4 g. LiAlH4 in 200 ml. ether. The mixture was heated 1 hr. after addition Water (50 ml.) was added, the suspension filtered, and the precipitate washed with acetone. The filtrates were evaporated and the residue triturated with hexane to give 14 g. 3,3-diphenyl-2-aminopropanol (II), m. 120-1°. To a mixture of 107 ml. ethylene dichloride and 71 ml. water containing 2.3 g. NaOH was added 8.9 g. II. This mixture was cooled to 0°, and 6.4 g. chloroacetyl chloride was added dropwise at 0°. After addition, the mixture was allowed to warm to room temperature and stirred 3 hrs. The organic layer was dried, evaporated, and the residue crystallized from benzene-hexane to give 7.4 g. 3,3-diphenyl-2-(α-chloroacetamido)-1-propanol (III), m. 106-8°. III (1.7 g.) was dissolved in 20 ml. absolute EtOH containing 0.32 g. powdered, dried KOH. The solution was stirred at room temperature 4 hrs. and filtered. The filtrate was evaporated and the residue triturated with ether to give 1.0 g. 5-benzhydryl-3-morpholone (IV), m. 133-5°. A solution of 3.9 g. IV in 150 ml. tetrahydrofuran was added dropwise, with stirring, to 1.6 g. LiAlH4 in 50 ml. tetrahydrofuran. The mixture was refluxed 2 hrs. after the addition Next, 4.7 ml. water was added and the mixture filtered. The ether layer was dried and gaseous HCl introduced to give 1.55 g. 3-benzhydrylmorpholine-HCl (I), m. >250° (decomposition).

IT 93406-27-0, Morpholine, 3-(diphenylmethyl)-
(derivs.)
RN 93406-27-0 CAPLUS
CN Morpholine, 3-(diphenylmethyl)- (CA INDEX NAME)

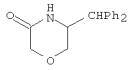
L6 ANSWER 9 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)



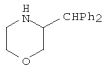
IT 93406-27-0P, Morpholine, 3-(diphenylmethyl)- 93817-51-7P, 3-Morpholinone, 5-(diphenylmethyl)- 108976-02-9P, Morpholine, 3-(diphenylmethyl)-, hydrochloride
RL: PREP (Preparation)
(preparation of)
RN 93406-27-0 CAPLUS
CN Morpholine, 3-(diphenylmethyl)- (CA INDEX NAME)



RN 93817-51-7 CAPLUS
CN 3-Morpholinone, 5-(diphenylmethyl)- (CA INDEX NAME)



RN 108976-02-9 CAPLUS
CN Morpholine, 3-(diphenylmethyl)-, hydrochloride (1:1) (CA INDEX NAME)



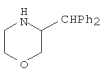
● HCl

L6 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1962:7722 CAPLUS
DOCUMENT NUMBER: 56:7722
ORIGINAL REFERENCE NO.: 56:1461c-f
TITLE: Hexahydrophenothiazine 5,5-dioxides
INVENTOR(S): Hromatka, Otto; Augl, Josef
PATENT ASSIGNEE(S): Chemische Fabrik Promonta G.m.b.H.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1088055		19600901	DE	

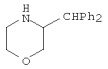
AB The title compds., useful as intermediates for pharmaceuticals, were obtained by heating 2-halocyclohexyl o-amino (or hydroxyamino)phenyl sulfones to temps. above 170°. Thus, 55 g. 2-chlorocyclohexyl o-nitrophenyl sulfide (Kharasch, et al., CA 41, 6217i) in 250 ml. AcOH and 67 ml. 30% H2O2 was refluxed 3 hrs. and poured into 1.5 l. H2O to give 76% 2-chlorocyclohexyl o-nitrophenyl sulfone (I), m. 141-2°. I (20 g.) in 250 ml. EtOH was hydrogenated (1.0 g. 5% Pd-C), to give 94% 2-chlorocyclohexyl o-aminophenyl sulfone (II), m. 79-80°. II (4.8 g.) was heated under N 50 min. at 220° and distilled (0.01 mm., 210-40° bath-temperature) to give 0.9 g. hexahydrophenothiazine 5,5-dioxide (III), m. 194-4.5°. Similarly, I was hydrogenated to 2-chlorocyclohexyl o-hydroxyaminophenyl sulfone (m. 117-20°), which on treating as above gave III. 2-Chlorocyclohexyl 2-nitro-4-chlorophenyl sulfide (obtained from 2-nitro-4-chlorophenyl sulfur chloride and cyclohexene) was oxidized with H2O2 to the sulfone compound, which was hydrogenated to 2-chlorocyclohexyl 2-amino-4-chlorophenyl sulfone (IV). IV (3 g.) was heated under N to 200-20° until 66% of the theoretical amount of HCl was split off. Then the product was distilled (0.001 mm., bath-temperature, 200-10°) to give 0.99 g. 8-chlorohexahydrophenothiazine 5,5-dioxide, m. 206-7°.

IT 93406-27-0, Morpholine, 3-(diphenylmethyl)-
(derivs.)
RN 93406-27-0 CAPLUS
CN Morpholine, 3-(diphenylmethyl)- (CA INDEX NAME)



IT 93406-27-0P, Morpholine, 3-(diphenylmethyl)-
RL: PREP (Preparation)
(preparation of)
RN 93406-27-0 CAPLUS
CN Morpholine, 3-(diphenylmethyl)- (CA INDEX NAME)

L6 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2009 ACS on STN (Continued)



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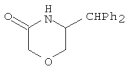
ACCESSION NUMBER: 1961:144283 CAPLUS
DOCUMENT NUMBER: 55:144283
ORIGINAL REFERENCE NO.: 55:27375h-i,27376a-e
TITLE: Central stimulants. Cyclized diphenylisopropylamines
AUTHOR(S): Winthrop, Stanley O.; Humber, Leslie G.
CORPORATE SOURCE: Ayerst Res. Labs., Montreal, Can.
SOURCE: Journal of Organic Chemistry (1961), 26, 2834-6
CODEN: JOCEAH; ISSN: 0022-3263
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
OTHER SOURCE(S): CASREACT 55:144283

AB A series of cyclized diphenylisopropylamines were synthesized for evaluation as central nervous system stimulants. β,β-Diphenylalanine (40 g.) and 600 ml. 10% alc.-HCl refluxed 4 hrs. gave Et β,β-diphenylalaninate-HCl (I), m. 200-1° (decomposition) (alc.-Et2O). I (46 g.) in H2O neutralized, the free base taken up in Et2O, and refluxed 1 hr. with 11.4 g. LiAlH4 in 200 ml. Et2O gave 14 g. 3,3-diphenyl-2-amino-1-propanol (II), m. 120-1° (C6H6). II (8.9 g.) added to 107 ml. C2H4Cl2 and 71 ml. H2O containing 2.3 g. NaOH, the mixture treated at 0° with 6.4 g. chloroacetyl chloride, left 3 hrs. at room temperature, and evaporated gave 7.4 g. 3,3-diphenyl-2-(α-chloroacetylamino)-1-propanol (III), m. 106-8° (C6H6-hexane). III (1.7 g.) in 20 ml. alc. containing 0.82 g. powdered KOH stirred 4 hrs. at room temperature, the filtrate evaporated, and the residue triturated with Et2O gave 1 g. 5-benzhydryl-3-morpholone (IV), m. 135-6° (MeOH). IV (3.9 g.) in 150 ml. tetrahydrofuran added in 2.0 min. to 1.6 g. LiAlH4 in 50 ml. tetrahydrofuran, the mixture refluxed 2 hrs., and hydrolyzed gave when treated with HCl 1.55 g. 3-benzhydrylmorpholine-HCl, m. above 260° (decomposition) (isoPrOH). 1,1-Diphenyl-2-amino-1,3-propanediol (30 g.), 14.7 g. chloroacetyl chloride, 5.2 g. NaOH, 400 ml. C2H4Cl2, and 200 ml. H2O gave 38 g. 1,1-diphenyl-2-(α-chloroacetamido)-1,3-propanediol (V), m. 167-9° (iso-PrOH). V (35 g.) in 400 ml. alc. containing 6.2 g. powdered KOH stirred 3 hrs. at room temperature and warmed 0.5 hr. at 40° gave 9.5 g. 5-(α-hydroxybenzhydryl)-3-morpholone (VI), m. 218-20°(MeOH). VI (9 g.) refluxed 2 hrs. with 2.4 g. LiAlH4 in Et2O gave 7.4 g. α-(3-morpholyl)benzhydrol-HCl, m. 242-4° (decomposition). DL-Proline Et ester (4.7 g.) added dropwise at room temperature to PhMgBr, the mixture refluxed 2. hrs., and hydrolyzed gave 4.5 g. oil; treatment with HCl gave α-(2-pyrrolidyl)benzhydrol-HCl (VII), m. above 250°. VII was converted to the free base, m. 81-2° (alc.-H2O). PhMgBr (1.47 mole) in 1 l. Et2O treated in 4 hrs. with 230 g. benzylidenecyclohexanone in 1 l. Et2O and 30 ml. C6C6 in the presence of 1.2 g. CuCl, the mixture refluxed 1 hr., stirred overnight, poured on cracked ice, acidified, and the crude product chromatographed gave 35% 2-benzhydrylcyclohexanone (VIII), m. 105° (C6H6-ligroine). VIII (12 g.) in 60 g. molten trichloroacetic acid treated at 66° with 4.56 g. NaN3, the mixture stirred 4 hrs. at 66°, H2O added, the mixture made alkaline, and the organic material extracted with CHCl3 gave 13.7 g. material containing 15% starting material. The ketonic material removed by treatment with Girard reagent T and the crude product extracted gave 11.8 g. dark oil.

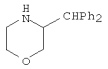
Crystn. gave 2-benzhydryl-6-oxohexamethylenimine (IX), m. 133-4° (EtOAc). IX (7.6 g.) in 200 ml. Et2O and 50 ml. dioxane added in 10 min. to 2.06 g. LiAlH4 in Et2O, the mixt. refluxed 2 hrs., decompd., and isolated gave with HCl 3.5 g. hydrochloride. The free base was chromatographed on Al2O3 to give 2-benzhydrylhexamethylenimine, m. 200-2° (Me2CO-Et2O). 3-Carbethoxytetrahydroisoquinoline-HCl (4.7 g.) added slowly to 0.28 mole PhMgBr in Et2O, the mixt. refluxed 3 hrs., stirred overnight at room temp., decompd., and the product sepd. as 6.6 g. oil; treatment with HCl gave α-(1,2,3,4-tetrahydro-3-isoquinolyl)benzhydrol-HCl, m. above 250°(alc.).

IT 93817-51-7P, 3-Morpholinone, 5-diphenylmethyl-
108976-02-9P, Morpholine, 3-diphenylmethyl-, hydrochloride
RL: PREP (Preparation)
(preparation of)

RN 93817-51-7 CAPLUS
CN 3-Morpholinone, 5-(diphenylmethyl)- (CA INDEX NAME)



RN 108976-02-9 CAPLUS
CN Morpholine, 3-(diphenylmethyl)-, hydrochloride (1:1) (CA INDEX NAME)



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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                    62.54     275.82

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                    -9.02      -9.02

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